The Chronicle

of the Early American Industries Association, Inc.

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THE HASHER

By Laurence A. Johnson

Recently I was browsing through several old copies of the Wolcott New York, *Lakeshore News,* and I ran across an advertisement in the October 22, 1874 issue for "The Great American Meat and Vegetable Cutter". This is shown in figure 1. This incident reminded me of such an implement which I had in my Old Cross-Road General Store Museum which had an 8 inch cylinder. This can be seen in figure 2. I recall when it was possible to find these cutters in a number of antique shops in this area some years ago.

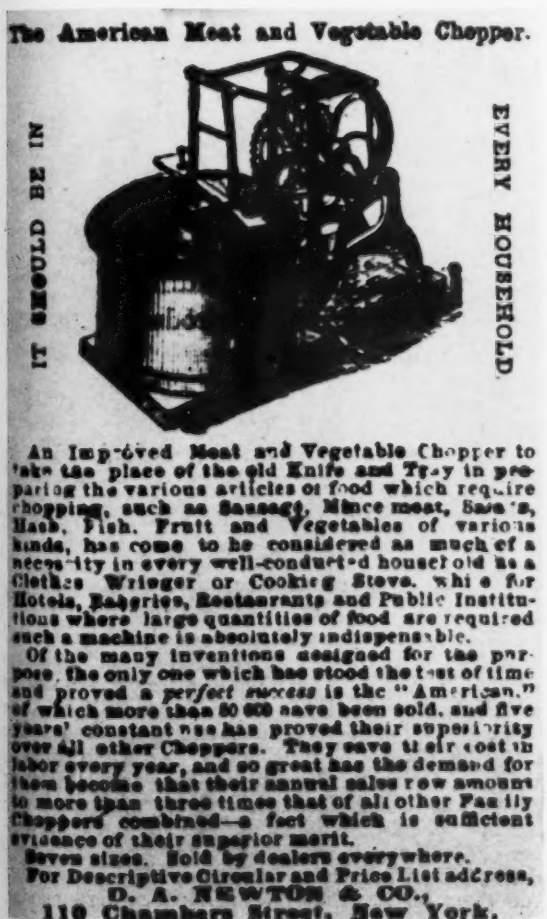

The American Meat and Vegetable Chopper.
IT SHOULD BE IN
EVERY HOUSEHOLD.
An Improved Meat and Vegetable Chopper to take the place of the old Knife and Tray in preparing the various articles of food which require chopping, such as Sausage, Mince meat, Sauces, Hash, Fish, Fruit and Vegetables of various kinds, has come to be considered as much of a necessity in every well-conducted household as a Clothes Wringer or Cooking Stove. While for Hotels, Bakeries, Restaurants and Public Institutions where large quantities of food are required such a machine is absolutely indispensable.
Of the many inventions designed for the purpose, the only one which has stood the test of time and proved a *perfect success* is the "American," of which more than 50,000 have been sold, and five years' constant use has proved their superiority over all other Choppers. They save their cost in labor every year, and so great has the demand for them become that their annual sales now amount to more than three times that of all other Family Choppers combined—a fact which is sufficient evidence of their superior merit.
Seven sizes. Sold by dealers everywhere.
For Descriptive Circular and Price List address,
D. A. NEWTON & CO.,
110 Chambers Street, New York.

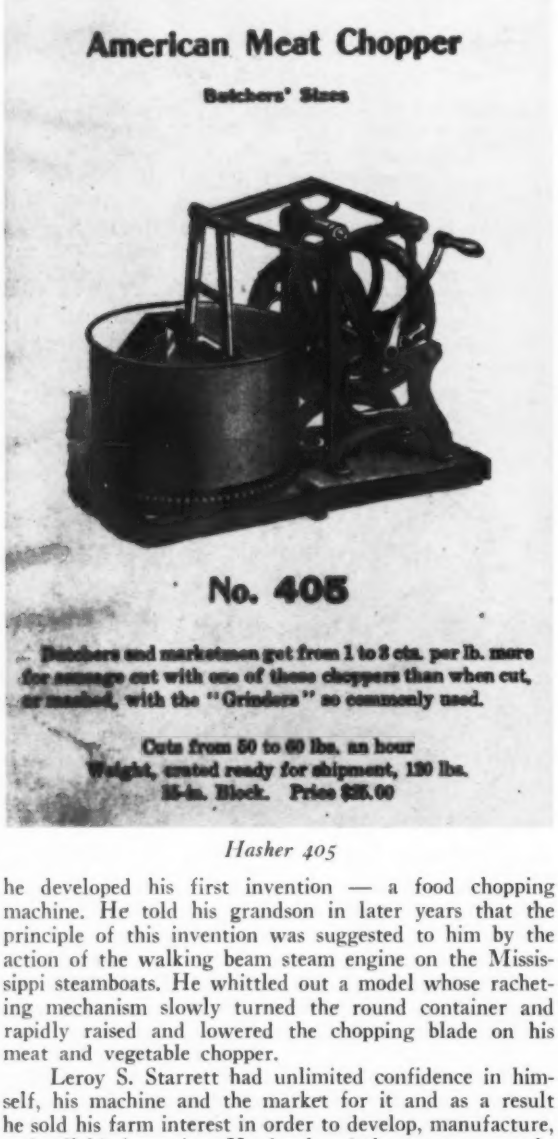
Figure 1

This aroused my curiosity and I checked the patent number of my cutter, number 47,875. This patent was issued on May 23, 1865 to Leroy S. Starrett, who resided in Newburgport, Massachusetts. In the original patent, this device was called an "Improved Meat Cutter". I pursued this matter no farther until I recently visited Mr. Edison C. Simonds, a Syracuse industrialist, who informed me that he had been corresponding with Mr. Arthur Starrett, the President of the L. S. Starrett company in Athol, Massachusetts. Mr. Arthur Starrett is the grandson of the inventor of the "Improved Meat Cutter" that was pictured in the *Wolcott, Lakeshore News.* Mr. Arthur Starrett's grandfather, Mr. Leroy S. Starrett, was the founder of the Starrett Company and they are now world famous toolmakers.

Figure 2

In this, I sensed a success story which resulted from a simple invention of an ingenious American who was not satisfied to do things as his forebears had done them. I 'phoned Mr. Arthur Starrett and received an invitation to visit him. He received me in a most gracious manner and revealed to me the entire story of his grandfather.

Leroy S. Starrett was born in 1836 and was one of twelve children of a farm family of China, Maine. In order to help out with family financial problems, he started to work at seventeen and by the age of twenty-six was running a dairy farm at Newburyport, Massachusetts. From an early age he was interested in the use of tools and machines and applied his mind to the problems of farming. Farmers in his neighborhood who first scoffed at his "different" practices, later came to speak in admiration of his practical success in farming matters. Leroy S. Starrett is reported to have said that he had, "invention on the brain". He outfitted a room over the stable where


American Meat Chopper
Butchers' Sizes
No. 405
Butchers and marketmen get from 1 to 3 cts. per lb. more for sausage cut with one of these choppers than when cut, or mashed, with the "Grinders" so commonly used.
Cuts from 50 to 60 lbs. an hour
Weight, crated ready for shipment, 120 lbs.
15-in. Block. Price $25.00

Hasher 405

he developed his first invention — a food chopping machine. He told his grandson in later years that the principle of this invention was suggested to him by the action of the walking beam steam engine on the Mississippi steamboats. He whittled out a model whose racheting mechanism slowly turned the round container and rapidly raised and lowered the chopping blade on his meat and vegetable chopper.

Leroy S. Starrett had unlimited confidence in himself, his machine and the market for it and as a result he sold his farm interest in order to develop, manufacture, and sell his invention. He developed the necessary machinery to turn out his new food chopper and while he was manufacturing these machines, he would on occasion slip straps over his shoulder and carry as many machines as he could, peddling them about the countryside in New Hampshire, Vermont and Maine. He told his grandson that he "left tons of sausage meat in my wake."

On one such trip he met a certain Mr. Hill, who persuaded him to bring the manufacture of his chopper to Athol, Massachusetts. Mr. Hill joined Mr. Starrett in financing this new company which was known as the Athol Machine and Foundry Company. In 1868 the chopper was successfully produced by this organization in Athol, Massachusetts. The food chopper rapidly endeared itself to housewives since it was not only useful in the chopping of meat and vegetables but was ideal for making mincemeat and the preparation and preserva-

American Meat Chopper
Butchers' Sizes
No. 406
With one crank, cuts from 60 to 80 lbs. an hour
Weight, crated ready for shipment, 275 lbs.
18-in. Block. Price $50.00
No. 407
Cuts from 80 to 100 lbs. an hour
Weight, crated ready for shipment, 300 lbs.
20-in. Block. Price $60.00
Tight and Loose Pulley for power, $8.00

Hasher 406 and 407

tion of many foods. This chopper became popularly known as the "hasher".

There were seven different numbered "choppers" manufactured at the factory. Number 401 and 402 were family sizes and were described in the company's catalog as follows: "no family, no matter how small should be without one, while for hotels, restaurants, and public institutions, where large quantities of food are required, they are absolutely indispensible. The principle working parts are made of the best malable iron, rendering a breakage impossible by an ordinary or reasonable usage. Number 401, cuts three pounds in three minutes, 8 inch cylinder. Weight, 14 pounds. Price, $5.00" and number 402 cuts five to six pounds in three minutes. 10 inch cylinder. weight, 21 pounds. price $7.00."

Number 403 and 404 are called "hotel sizes" and

the catalog stated: "these sizes are made very strong and heavy and are special favorites with farmers for cutting sausage, as well as for large hotels and restaurants. Number 404 is the same size as number 403 but has an intermittent gear feed, like the butchers' sizes, instead of a rachet and pall like the family sizes." — "number 403 cuts 8 to 10 pounds in three to four minutes. 12 inch cylinder. weight, 37 pounds. price $10." . . . "number 404. cuts 8 to 10 pounds. in three or four minutes. 12 inch. cylinder. weight, 43 pounds. priced at $12."

Number 405, 406, and 407 were advertised as "butcher's sizes". The catalog stated: "these choppers are too well known to need either an extended description or recommendation. They are pronounced by butchers who have had them in constant use for years — as the best sausage cutters in America." Number 405 was especially adapted for use for small butchers and market men and could be used in public institutions, schools, and hospitals. Number 406 was in all respects, similar to number 407 with the exception that it had one crank and the cylinder was two inches smaller in diameter. Number 407 had two cranks and could be easily operated by two boys, or by putting a pulley in place of the main crank, it could be arranged to run by power. This could be accomplished with a small expense.

Concerning number 405, the catalog stated: "butchers and market men get from one to three cartons per pound more sausage cut from one of these choppers then when cut, or mashed, with the "grinders" so commonly used." . . . "cuts from 50 to 60 pounds. an hour. weight, crated for shipment, 120 pounds. 15 inch block. price $25." . . . "number 406, cuts 60 to 80 pounds an hour, weight crated, 75 pounds with an 18 inch. block and priced at $50.00" . . . "number 407, cuts 80 to 100 pounds an hour, weight crated 300 pounds, 20 inch block and priced at $60. tight and loose pulley for power, cost $8.00 a ton."

With his business well on the road to success, Leroy S. Starrett began work on other inventions dealing with perfecting certain tools used in industry. The number of his inventions eventually reached 100, but by his fortieth birthday, a period of great misfortune descended upon him. His wife died leaving him with four small children and in addition he lost the use of his hearing. Unfortunately, his association with the Athol Machine and Foundry Company had now developed to such a point that certain frictions forced him to retire and give up his entire interest in the company which was tied up principally in stock. Despite this, Mr. Starrett continued to have supreme confidence in his own ability and faith in God and he was determined to set his future course on the premise that he often stated: "I saw no other way but to try to create a business for myself by inventing something useful that people would want."

He saw the need for improved tools of measurement and this is an excellent example of his remarkable ability to recognize a practical need and to devise a remedy. His grandson said of him "when my father, Frank Starrett was a little boy, my grandfather became increasingly impatient with the problem of threading the tips of shoe laces into the eyelet of my father's high shoes." As a result of this annoyance, patent number 73,847 was issued on January 28, 1886 to Leroy S. Starrett and this "improvement in shoe lacing", came into being. However, Mr. Starrett sold this patent for $600 in order to span a difficult financial period in which he was engaged in the manufacture of a new invention, his combination square. This square was to replace the long used, clumsy, fixed square. The shoe lacing patent, that he sold, produced millions for those who purchased it from him.

Leroy S. Starrett worked many long hours at his kitchen table until the problems of practical design were solved. His next step was to overcome the obstacles of financial backing and to create a demand for the radically revised square. He also had to encourage retailers to stock it.

His great personal diligence and the faith of others in his inventive genius, led to the successful manufacture of this and other tools of his invention. Thus was established the L. S. Starrett Company and as early as 1882 they were exporting to foreign markets. He continued plant expansion during the depression year of 1904. In 1905 Mr. Starrett bought control of the Athol Machine and Foundry Company and thus fulfilled the promise he made to himself when he was ousted from it. The home of "The Hasher" was now the Athol Machine Company. Leroy S. Starrett died in 1922 at the age of 86.

Before leaving Athol, I visited this factory on South Street. Although it is 45 years since the last "hasher" was made, this factory is still affectionately called by the people of Athol, "The Hasher". In Athol one still hears the expression "down by the hasher", and "he works at the hasher".

I was rather disappointed not to find at the factory one of the original labels that were put on the hashers before it left the factory. This label gave directions for the care and operation of this machine.

Sometime ago I copied such a label, or what was left of it, on a "hasher" that was in the Seaport Store of the Marine Historical Museum in Mystic, Connecticut. This is the only such label that I have ever seen. However, this label was torn and several words were missing. I showed my notes on the label to Mrs. Hill who is in charge of the office at the Athol Machine Company and she introduced me to Mr. Bernell Coffin, the plant superintendent, and to his assistant, Mr. Benjamin Davis. This partial label was of such interest to these two gentlemen that they immediately began to fill in the blank areas. It now reads as follows:

"Starrett's pat. May 23, 1865
Manufactured by
Athol Machine Company
Athol Depot, Mass.
Directions

These directions are as follows, "put any quantity of material to be chopped into the dish which will allow the knife to rise an inch above it. See that the connecting bolt in the end of the walking beam is made secure by *inserting knife frame* through it. Start the crank quick, stir the contents of *cylinder* towards the center once or twice while being chopped *fine,* empty the dish, take out connecting bolt, *pin* rod falls to the right, fold the knife over the *side, it* may be removed and contents emptied." The words in italics were those missing on the label.

The L. S. Starrett Company plans to build additional space for its operation. In connection with the proposed expansion plan, its president, Mr. Arthur H. Starrett, hopes to establish a museum. This museum will not only pay tribute to some of his grandfather's 100 inventions,

(Continued on Page 64)

SOME NOTES ON THE COTTON GIN

Cotton, as it is grown in the field, consists of fluffy masses of lint adhering to seeds and is called in this condition, "seed cotton". The varieties of cotton grown in the United States can be divided into two general classes: "Upland" and "Sea Island". In the "Sea Island" cotton, the length of the fiber or "staple" varies from ⅝ to 1¼ inches and its seeds are black. This type of cotton does not adhere so closely to the seeds and can be easily pulled off clean, leaving the seed perfectly smooth. These seeds are called, on occasion, "ball-headed seed". In the "Upland" cotton the length of the fiber varies from 1½ to 2½ inches and this type of cotton is naturally much more desirable. The lint adheres very firmly to the seeds, appearing to grow out of it like wool from a sheep's back. The seeds, after being cleared of lint, still have a wooly appearance. In a great many varieties the seeds are green in color, thus giving to this type of cotton the name, "green seed cotton".

Cotton has to be separated from the seed either by hand or by mechanical means. Since most of the ancient eastern cottons were of the black seed variety, the first mechanical method of separating the seed from the cotton developed in India about 300 B. C. This simple mechanism consisted of rollers which ran close together and would pull the lint through and leave the seed behind. From this basic principle was developed the modern roller gin used on all types of "Sea Island" cotton.

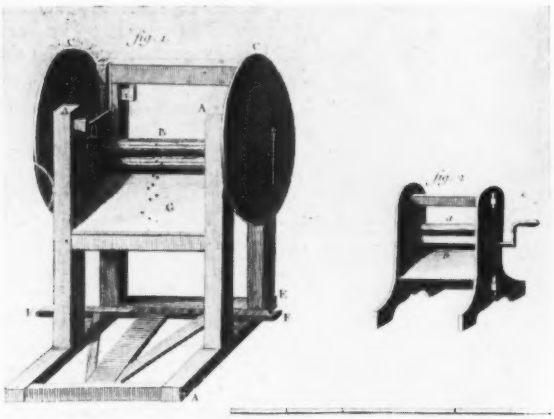


Figure 1

Since Great Britain from the middle of the 18th and throughout the 19th century assumed the lead in the manufacture of cloth, the demand for yarn to weave became a paramount concern to British Mercantile interest. The American colonists made every effort to meet this demand and as long as the population of the New World remained along the Atlantic coast, where "Sea Island" cotton grew to perfection, there was no great problem in securing yarn for the use in the British market. Cotton in this period was processed either by hand or by the roller gin and both operations were slow. But the roller gin then in use, would clean about five times as much cotton in a day as could be cleaned by hand.

With the introduction of the "Upland" variety of cotton which was cultivated away from the coast and further inland where "Sea Island" cotton would not grow, the roller gin proved entirely inadequate and unsuitable. Thus, as in the invention of other machinery, a crying necessity was bound to stimulate a solution for the problem.

We may define the word "gin" as a machine for separating lint cotton from the seed. It may be either of the roller-type already mentioned and which is still used today for "Sea Island" cotton, or it may be a saw gin as is now used on "Upland" cotton, the variety most popular in the United States today.

The principle of the roller-type gin is that of squeezing the cotton through two rollers whereby the seed cannot pass and the seedless lint falls on the opposite side. Figure 1, shows a foot and hand-operated roller-type gin taken from the 1767 French Encyclopedia edited by M. Diderot. Figure 2 shows the roller hand operated gin which members of the Early American Industries Association saw during their visit to Old Salem, Winston Salem, North Carolina at the fall meeting in 1957. Dr. Frank P. Albright, Director of the Wachovia Museum at Old Salem, described it as operating on the clothes wringer principle. On this machine the seeds are actually squeezed out of the cotton. The two pegs are wedges used to tighten the adjustment of the two rollers. The similarity between the Old Salem cotton gin and the one described in the French Encyclopedia of M. Diderot is remarkably close and would appear to disprove the theory that all French implements are so different from those utilized by the English that they should not be compared or contrasted.

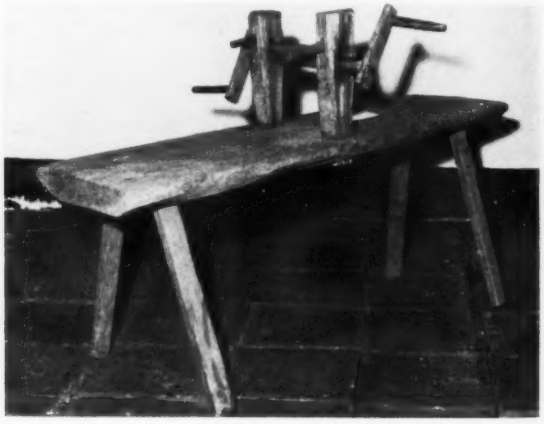


Figure 2

Figure 3 is a model of the Eli Whitney gin developed for "Upland" cotton which was deposited in the United States National Museum in 1884 by Eli Whitney, Jr. This was one of the five models made by Eli Whitney, Jr's. father. Figure 4 shows a photograph of a portion of page 380, of the *American Farmer,* of February 21, 1823, volume number 4, number 48 in which was published the following statement by the Editor: "when we received the following account of improvements made on cotton gins, by Dr. Rush Nutt, near Petitgulth, Mississippi, we applied to William Thornton, Esquire of

Washington City for a description of Whitney's cotton-gin from the patent office that we might place before our readers a complete view of so important a machine and enable all of them to understand the nature of the improvements."

The Editor of the *American Farmer,* a Mr. Skinner, then gave a short description of Whitney's gin which is much less detailed than the very full description which appears in a schedule filed in 1804 in Georgia. This 1804 schedule included a wood cut of the model in the patent office. This wood cut illustration does not indicate that the model is equipped with circular saws which are essential to the processing of "Upland" cotton. The *American Farmer* then states "the cylinder is of wood, its form is perfectly described by its name, and its dimensions may be from 6 to 9 inches in diameter, and from 2 to 5 feet in length . . . the surface of this cylinder is filled

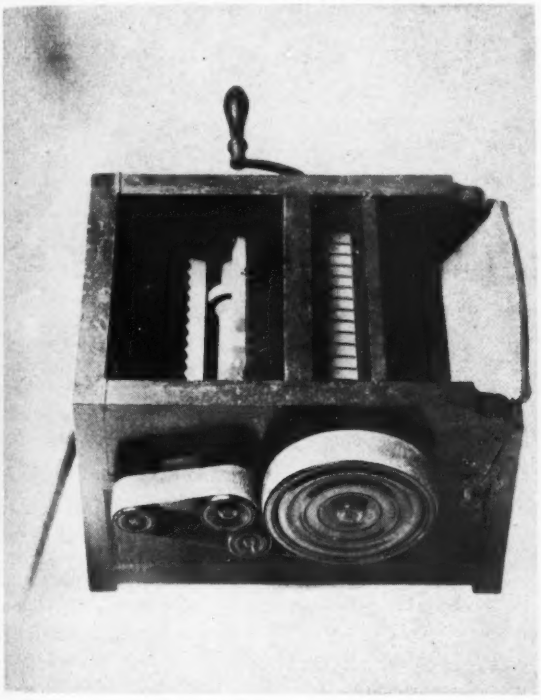
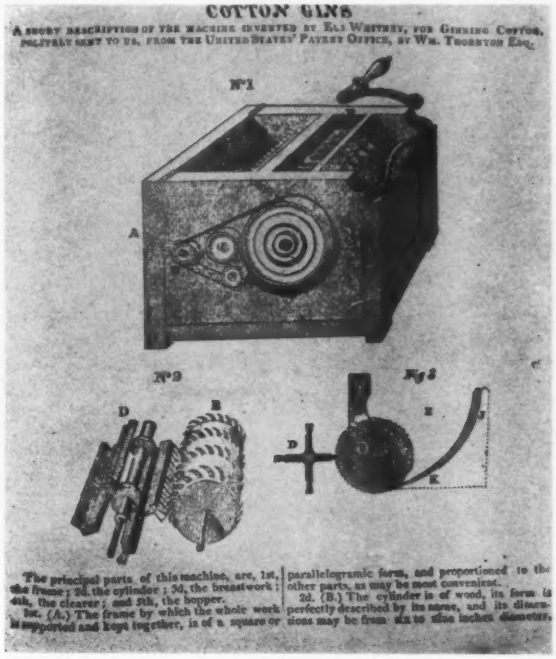


Figure 3

with teeth, set in angular rows, which are at such distance from each other, as to admit a cotton seed to pass freely in the space between them. The space between each tooth in the same row, is so small as not to admit a seed nor half a seed to enter it. These teeth are made of stiff iron, driven into the wood of the cylinder, the teeth are inclined in the same way and in such manner, that the angle included between the teeth, and a tangent drawn from the point, into which the tooth is driven, would be about 55 or 60 degrees . . . ".

The United States patent office was destroyed by fire on December 15, 1836 and with this fire came the loss of all models and specifications dating up to that time. There has always been some question in relation to the original specifications of Eli Whitney's patent and the type of model that he filed at that time with his application for a patent. It is considered by many today that Whitney did not first invent a gin with a cylinder of saws or a cylinder built with teeth cut in a plate of metal. Those who doubt that Whitney first invented such a machine attribute it to Hodgen Holmes of Augusta, Georgia. who in 1795 invented a saw gin, an improvement on Whitney's machine for refining "Upland" cotton.

In figures 3 and 4, one can note the cylinder with the nail or saw like teeth and the brush cylinder. As cotton is applied to the machine, it is drawn through the teeth and, as previously described, the space between each tooth in the same row is so small as not to admit a seed, thus, the cotton is pulled through and the seed left behind. The cleaner or brush is used to brush the cotton from the teeth after it is forced through. Therefore, Whitney's original idea seems to have been that of carding the lint fiber from the seed rather than that suggested by the use of the saw.



COTTON GINS

A SHORT DESCRIPTION OF THE MACHINE, INVENTED BY ELI WHITNEY, FOR GINNING COTTON, POLITELY SENT TO US, FROM THE UNITED STATES' PATENT OFFICE, BY WM. THORNTON ESQ.

N°1

N°2

Fig 3

The principal parts of this machine, are, 1st, the frame; 2d, the cylinder; 3d, the breastwork; 4th, the clearer; and 5th, the hopper.

1st. (A.) The frame by which the whole work is supported and kept together, is of a square or parallelogramic form, and proportioned to the other parts, as may be most convenient.

2d. (B.) The cylinder is of wood, its form is perfectly described by its name, and its dimensions may be from six to nine inches diameter,

Figure 4

Figure 5, is taken from B. L. C. Wailes: *Report on the Agriculture and Geology of Mississippi,* 1854. Figure 1, of this illustration shows the most simple and primitive type of gin. Note the similarity of this type of gin to the one in Old Salem. Two boys sat on the bench at either end of the gin, face to face, one operated the crank and fed the rollers with seed cotton while the other freed the cotton from the seed as it was drawn through. The rollers were less than an inch in diameter and about 8 inches long, revolving in opposite directions but in close contact. Figure 2, of the drawing is a modification of this gin in which the rollers were rotated by means of a treadle worked by foot which left both hands of the operator free to work upon the rollers. This meant that one person was thus able to handle this machine instead of two. This type of gin was in use in the West Indies as early as 1764 and probably in the American Colonies.

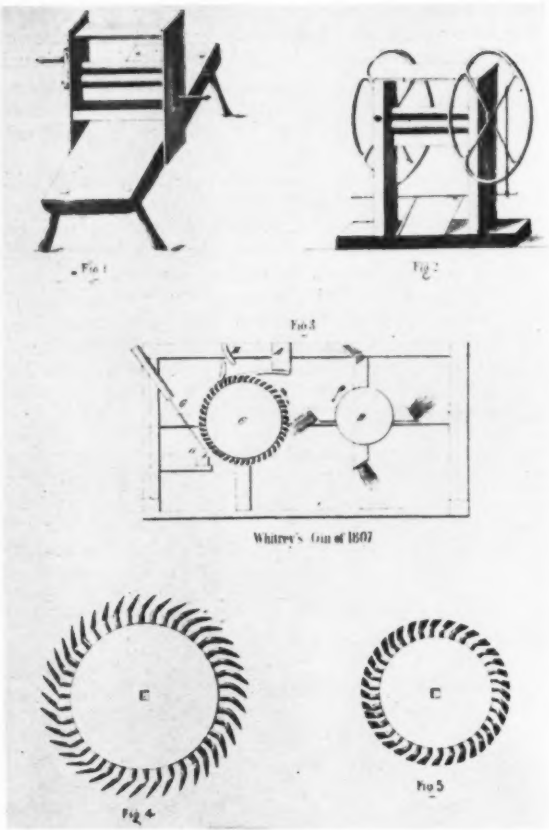


Figure 5

Figure 6

Figure 7

Figure 3, of this same illustration, shows Eli Whitney's gin of 1807. The cylinder in the model is divided into three parts; the one-third of it at the left end is armed with stout crooked wires driven into the cylinder and flattened at the sides with the ends brought to an edge (figure 4). The middle part of the cylinder is provided with a similar arrangement of wires, not flattened as in the first, but pointed as in (figure 5). The remainder of the cylinder is mounted with the circular saw or rags, similar to those now in use. Figure 3 of this illustration shows an end of the stand and indicates the position of the cylinder and brush or clearer, as it was then termed in the specifications of the patent.

Figure 6 is another gin which dates from the early 1800's and is also located in the Wachovia Museum in

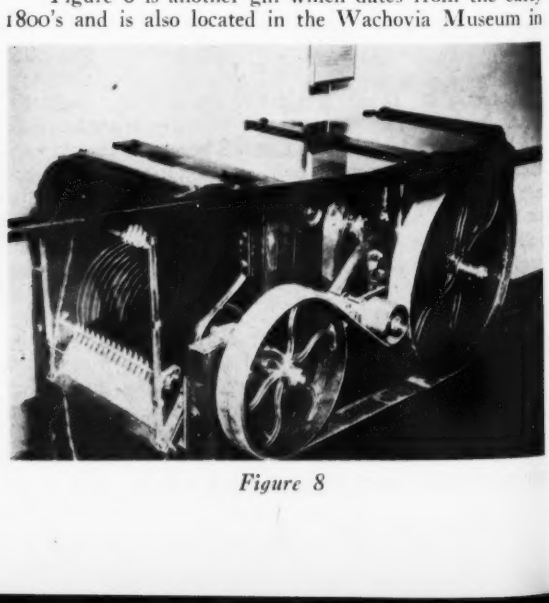


Figure 8

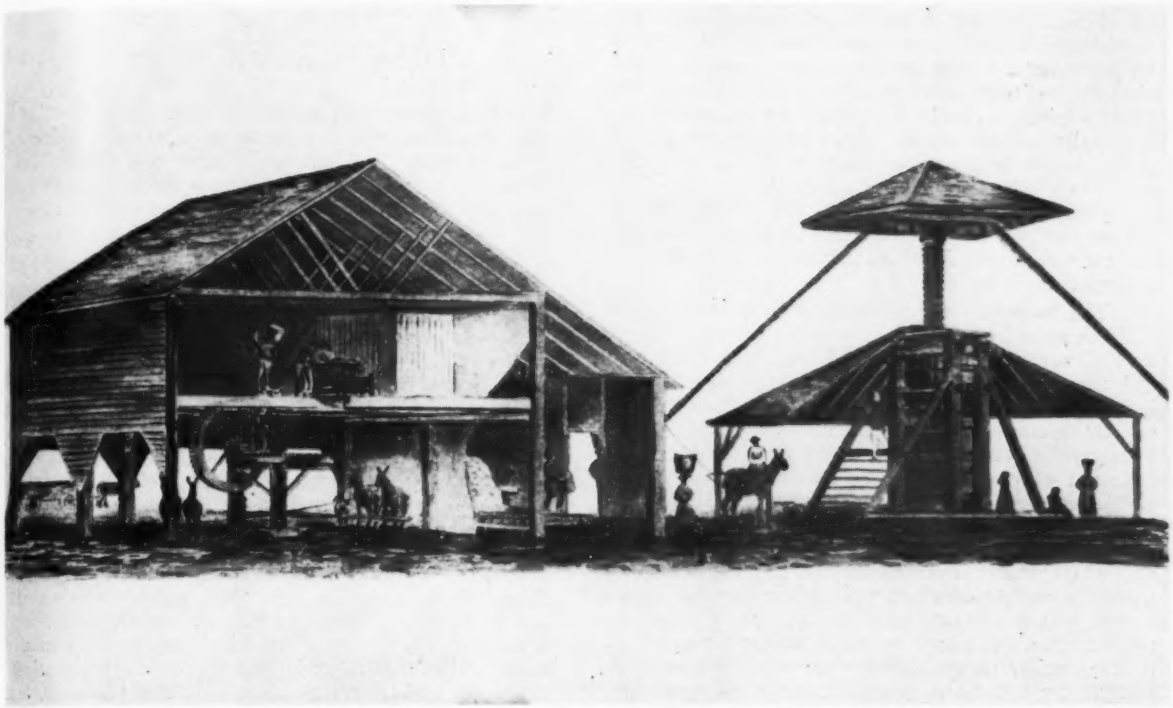


Figure 9

Old Salem, Winston Salem, North Carolina. It has a series of "saw wheels" with teeth which pull the fibers of cotton through the machine. Evidently power of some sort could be attached to the gin to operate it.

The saw gin is composed of a saw cylinder, made up of circular saws faced by collars on a mandrill or shaft. The saws project into a breast box, through grooves or ribs set close enough together to prevent the passage of seed. The teeth pull the lint through the ribs and leave the seed behind. Revolving in an opposite direction to the saw tooth cylinder and parallel to it in an adjacent box, is another cylinder revolving with bristles which brush the lint out of the teeth and delivers it into a room or into a condenser. The brush cylinder revolves four or five times as fast as the saw cylinder.

The gins pictured in Figure 7 and 8, are on display in the Old Slater Mill, Pawtucket, Rhode Island. The hand-operated gin was made in 1900 by the Carver Cotton Gin Company, East Bridgewater, Massachusetts. Some of these gins were sent to China prior to the outbreak of the Japanese-Chinese War of 1909 and visitors to the Old Slater Mill have the opportunity of seeing this machine in operation. Figure 8 is a modern gin used in industry today.

After the invention of the saw gin, a logical set of circumstances led to the construction of buildings used for the storage of cotton and in which various operations required in the separation of the cotton from the seed could be accomplished. Such structures were built so as to cover the necessary machinery to operate the gin by power which generally included from two to four mules or horses. Along with the structure, there was usually a large press, consisting of a large wooden screw necessary for packing the lint cotton into bales. The main building was called the gin house and the press was called the screw. Up to the period of 1875-1880 no substantial improvements of any consequence were made in this type of operation though in many cases the horsepower had been supplanted by a small steam engine.

This structure is pictured in figure 9 and you can see that it consisted of a place for the seed cotton as it was gathered from the field; a suitable place for the operation of the gin; a lint room to receive the cotton as it came from the gin; and a lint room to receive the lint crop cotton for the temporary storage while waiting to be packed; and finally a place for the "running gear" or driving apparatus so located that horse or mule power could be applied under shelter.

The most common type building or buildings was a one and a half or two story structure in which the main part of the lower story was left without a floor or sides except where the lint room adjoined it. The gin was placed in the second story, called the gin room; and this room was always made large enough to serve as a storeroom for seed cotton as it was brought in by the pickers. The gin discharged lint cotton into the upper lint room, this lint would be thrown down by hand through a door into a second lint room directly under it. Here it would be trampled down to save room while awaiting shipment to the press.

In the open space under the gin floor was a vertical wooden shaft with long levers pressing through at a proper height from the ground so that mules or horses could be hitched to it. On this vertical shaft above the levers was a large wooden cog wheel, some 8 to 10 feet in diameter. The cogs were made of hickory, and were mortised into the wooden rim. These meshed with the "wallowers" or "wabblers" set into the circumference of

a horizontal shaft which turned the wooden hangars suspended from a beam of the upper floor. On this horizontal shaft was a plain wooden pulley six or eight feet in diameter, and from which, by means of a belt, the gin was driven. On the saw shaft of the gin was an eight to twelve inch pulley which received the belt from the driving pulley. It was desired to drive the gin at the rate of 200 to 300 revolutions per minute. These wooden cog wheels and pulleys, clumsy as they were, were usually preferable to castings, because the initial cost was much less, and the necessary skill and materials were both available, to keep them in repair.

The necessary quantity of cotton to make a bale could be packed by the weight of two men in a box with dimensions equal to the length and thicknesses of the bale, and about nine feet high. To press this down to 40 inches, was the work of the "screw". The "screw" was entirely separated from the gin house and lint cotton had to be carried out in a hamper basket from the lower lint room to the screw as shown in the drawing.

There were generally four mules to operate the gin, two attached to each lever under the gin house with two drivers. In the story above, a ginner stood at the gin and fed cotton into it properly. A ginner's helper supplied the cotton to the ginner at the gin. There was also a helper who was required to push the lint from the gin into the lint room, and a man or boy to remove the seed from the floor under the gin. There were two hands necessary to carry the cotton from the lint room to the screw and two persons were needed to pack cotton down into bales. One or two mules were required to pull the screw and they were supervised by from one or two drivers. In all, eleven hands were necessary to operate such an establishment. To gin and pack two or three bales a day was fair work for this force. The bales were partially closed in jute bagging and bound with rope.

Sources:

Thompkins, D. A., Cotton and Cotton Oil, 1901

Wailes, B. L. C., Report on the Agriculture and Geology of Mississippi, 1854.

Newton, F. L., Historical Notes on the Cotton Gin, Annual Report of the Board of Regents of the Smithsonian Institution, 1937.

The Hasher

(Continued from Page 59)

but will also reflect the color and history of the four industries in Athol, Massachusetts. These four major industries were all started by Leroy S. Starrett and are the L. S. Starrett Company, Athol Machine Company, Athol Manufacturing Company, and the Union Twist Drill Company. Mr. Starrett is a member of the Early American Industries Association and I am sure his fellow members will wish him success and look forward to visiting his proposed museum, which will be a true testimony to the inventive genius of the designer and builder of the "hasher". It is my hope that the readers of this article may direct to me an original "hasher" label, which has survived and will verify our insertions in the copy in this article.

25th Anniversary Meeting Dearborn, Michigan

The twenty-fifth anniversary meeting of the Early American Industries Association was held at the Henry Ford Museum and Greenfield Village at Dearborn, Michigan on October 17, 18 and 19, 1958 with about 111 members present.

A full and interesting program was provided for the members throughout the period of the meeting. On Friday, members made either individual visits to the Museum and Village or took advantage of the two tours provided for them through the Decorative and Mechanical Arts sections of the Museum. A Whatsit room was opened in the Clinton Inn on Friday with some forty Whatsits placed on display for the members. At 6:00 p. m. a get-together was held in the Clinton Inn Taproom with Dr. Donald Shelly, the Director of the Museum, and Mrs. Shelly as hosts. At 7:00 p. m. a "get acquainted" dinner was held in the Clinton Inn. At the dinner, Dr. Sabin, President of the Early American Industries Association, introduced the officers of the Association and Dr. Shelly welcomed the members and talked about the Henry Ford Museum and its purpose. Dr. Shelly introduced the staff members of the Museum at this meeting. Dr. Sabin called on Edward Durell, who talked about purposes of the Early American Industries Association and emphasized that tools, as Mr. Wiggins had said many years ago, are the business of our Association and that we should never lose sight of this purpose. Mr. Durell then introduced Mr. Lewis Wiggins, President Emeritus, and one of our founders, to the group. Mr. Wiggins had traveled from California to attend this meeting and was presented a leather bound copy of the Anniversary Issue of the *Chronicle*. Mr. Wiggins then talked of the early years of the Association and discussed his first meeting with Stephen C. Wolcott in the kitchen of his "Old Tavern" in Northampton, Massachusetts. Mr. Wiggins complimented the Association on the fine job it is doing and has done throughout the past twenty-five years.

A director's meeting was held immediately after the dinner and at Dr. Sabin's suggestion, a commitee was formed to investigate the possibility of obtaining a grant to permit a more comprehensive study of the early American tools with the possibility that the Association might one day publish such a study. It was also decided at this meeting that an auction would be held at the spring meeting in 1959 in Old Saugus in Massachusetts. Proceeds would go to the Early American Industries Association. It was agreed that a list be made available in the near future covering the various collections of the members of our organization.

On Saturday, October 18, 1958 members toured Greenfield Village and visited the Whatsit Room from 9:00 to 11:30 a. m. At noon an excellent lunch was given for members in the Clinton Inn in Greenfield Village and during the afternoon members had a chance to observe certain craft activities in the Village with certain demonstrations being given by Museum Craftsmen. The Saturday evening dinner was held at Lovett Hall and after dinner the Street of Shops in the Museum was open to members of the organization and were staffed by var-

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The Chronicle

Early American
Industries Association, Inc.

The purpose of the association is to encourage the study and better understanding of early American industry, in the home, in the shop, on the farm, and on the sea, and especially to discover, identify, classify, preserve and exhibit obsolete tools, implements, utensils, instruments, vehicles, appliances and mechanical devices used by American craftsmen, farmers, housewives, mariners, professional men, and other workers.

FRED C. SABIN, *President*
Little Falls, New York

LORING MCMILLEN, *Vice-President*
Staten Island Historical Society
Richmond, Staten Island, New York

GEORGE M. SIMMONS, *Vice-President*
Richmondville, N. Y.

M. W. THOMAS, JR., *Vice-President*
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Communications regarding the contents of *The Chronicle* and back issues should be addressed to the Editors; suggestions for members to John P. Fox ;all other matters to the President Address as here given.

DUES

The annual dues are payable on January 1st and are $5.00. The *Chronicle* is published quarterly and is sent to all members without additional charge. Printed on the press of The *Virginia* Gazette, founded 1736. *Williamsburg, Virginia.*

Identification — Hat Stretcher

In the March 1958 issue of the *Chronicle*, we printed a very instructive article on the "Niddy-Noddy" by Laurence A. Johnson. One of the Niddy-noddys pictured, figure 1, was quite small, measuring seven inches in length, and 3⅛ inches wide and was from Colonial Williamsburg, Williamsburg, Virginia. Concern as to this identification first came to Mr. Johnson while on a visit to various museums in England last spring. At two museums he was informed that the item looked more like a hat-stretcher. Mr. Miner J. Cooper, Windsor, New York, also wrote Mr. Johnson that this object was a hat-stretcher.

We placed the item in question on the Whatsit table at the 1958 E.A.I.A. spring meeting at Doylestown, Pennsylvania and stated, on the card, that the item had been considered previously a niddy-noddy but was now

Figure 1

thought to be a hat-stretcher. The responses almost developed into a "It is" and "It isn't" debate! However, in the Hat Shop in the Buck's County Museum were two such items called hat-stretchers. They are pictured in figure two. Mr. John Cummings, Curator of the Bucks County Historical Society, had this to say about them: number 5067 was recorded as "Bought by H. C. Mercer" — no other data, and number 8886 — "From old hat shop in Nazareth, Pa." Mr. Cummings wrote that he had been informed that both of them came from hatters' shops — number 8886 probably was from the Christ Hat Shop which was operated in Nazareth by the same family for several generations during the nineteenth century. A detailed drawing was enclosed with the pictures giving the

Figure 2

dimensions. The overall length of one was 7½ inches and the other 7¼ inches, the thickest part of the handle measuring ⅞ inches in both. Each has a screw in the center to adjust the length. One screw is 1½ inches long, the other 2 inches. One of the end pieces was secure while the other was free to swivel.

Mr. Louis H. Brendel, of New York City, sent us a photograph of his "Niddy-noddy" hat-stretcher, figure three. He bought it in an antique shop in Hillsboro, New Hampshire and to quote from Mr. Brendel's letter: "Actually, I think I bought it as much for the reason that she described it as a wooden cork screw. I certainly don't believe she could possibly have taken any stock in that fantastic yarn but it tickled me and I think she deserves an A for effort."!! He continues: "The handle-shaped piece of wood is fastened firmly to the rod containing the male threads. On the other hand, the handle-shaped piece of wood attached to the bulbous cylinder of wood containing the female threads, is free to turn independently." Mr. Brendel was honest enough to state that he had no "positive proof" that his object is a hat-stretcher, but that is what he believes it to be.

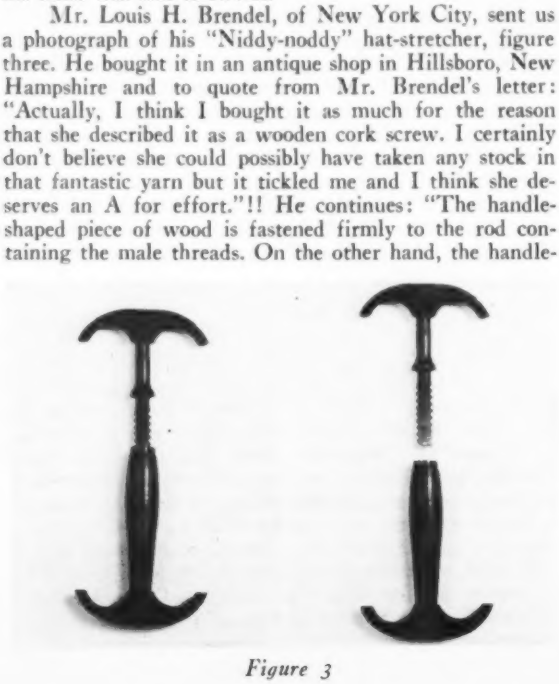


Figure 3

Dr. Frank P. Albright, of Old Salem, North Carolina, sent us a description and picture of the one in Wachovia Museum. He stated that it is made of one piece of poplar, and the writing, "Grandfather Vogler's hat stretcher", was put on in ink about a generation ago when it was given to the Wachovia Historical Society. John Vogler was born in 1783 and died in 1881. It measures eight inches in length and about 5 inches wide.

Figure 4

Figure 5

We have reproduced a photograph of a modern hat-stretcher. Figure 5. There is similarity! It appears we must classify the Colonial Williamsburg niddy-noddy as a hat-stretcher.

Identification
Tailor's Measuring Device

By Miner J. Cooper

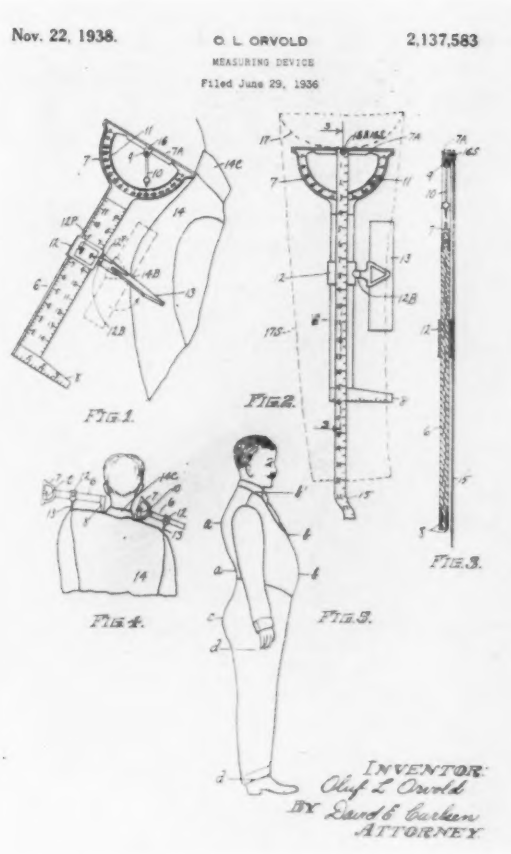
The value of a nation wide photographic coverage of our unidentified Whatsits is an aim which I think should be given serious consideration, and I believe the following incident proves this conclusively.

Dr. Sabin examining Whatsit at Dearborn, Michigan.

The illustration, showing President Sabin holding one of the Whatsits displayed at the Dearborn meeting, was published in the Detroit Free Press, and went out as an Associated Press release to be published in newspapers all over the country. Dr. Sabin has received many interesting letters, and among them one *from the inventor of the device himself!* He enclosed the patent papers, and also the patent papers of his improved model. I quote from his letter: "In the Oct. 20th issue of The St. Paul, Minnesota Pioneer Press I see a wire photo of you holding a tool, as you call it. This tool is an invention of my own, having been patented July 2nd, 1918, Patent number 1,271,486. It was lost by a man from Chicago who had his car stolen and brief case which contained the device taken. — The device you saw was stolen about thirty-eight years ago. — I later improved on the device, and used it in my tailoring business. I am enclosing patent papers on the improvement so you will probably understand the use of it better. It measures different postures, such as stoop of figure, slope of shoulders, hollow back, full chest, prominence of seat, etc. Sincerely yours, Oluf L. Orvold, Brook Park, Minn."

The present owner of the device is member Floyd Carter, Normal, Illinois.

I am sure we are all grateful to Mr. Orvold for his interest and courtesy.



Oluf L. Orvold's patent number 2, 137, 583.

Identification — Fishing Lamp

In the June 1958 issue of *The Chronicle*, page 22, we pictured a "bucket" with six spouts owned by Mrs. Emily Stuebing, Pittsburgh, Pennsylvania, who desired knowledge of its use. Mr. Miner J. Cooper, Windsor, New York, wrote us that it is a "Six Spout Bucket Lamp" often called a Fishing torch. This type of lamp was used principally for fishing, and often in shops, areaways, etc. ,where odor and smoke was not a problem. His information comes from Hough, *Bulletin #141*, United States Museum. Mr. Cooper stated that Mrs. Stuebing's "bucket" appeared to have been made from a "store bought" mop pail of after 1900.

Mr. Bryan Hanks, Fort Worth, Texas wrote that he had a similar "bucket" in his pioneer collection at Cashiers, North Carolina. There had been questions as to its use, but he had been informed that it was used over the pulpit at Church meetings, or in tents. Mr. Hanks' information would coincide with that of Mr. Cooper's.

At the Dearborn meeting this year, Mr. Floyd Carter, Normal, Illinois, informed us that the bucket was a fishing light and was used to gig fish by, the use of which is now illegal.

Mr. Edward Durell, Columbus, Ohio, has almost a duplicate of this "bucket" in his collection of lighting devices at The Union Fork & Hoe Company and he identifies his as a fishing light.

From this information we feel that the "bucket" is definitely a fishing light or torch.

25th Anniversary Meeting

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ious personnel of the Museum. Various craft demonstrations were also set up along the street.

On Sunday, October 19, 1958, members had another opportunity to visit the Street of Shops in the Henry Ford Museum. This was truly an outstanding meeting of the Early American Industries Association and the Henry Ford Museum staff are to be commended for their fine efforts in making this an outstanding program.

No report of the twenty-fifth anniversary meeting would be complete without paying tribute to Mr. Lewis Noble Wiggins, President Emeritus of the Early American Industries Association who is 82 years "young." He traveled from California so that he might attend this twenty-fifth anniversary meeting and it was a pleasure for all members who had never met "Lew" to see him in action at a Whatsit meeting. It is to be hoped that he will attend many more of our meetings in the future.

ON TIN-PLATING

Mr. James A. Keillor of White Plains, New York has forwarded us the following interesting note on tin-plating in England of the late eighteenth century. The material is extracted from a book written by the Rev. Richard Warner of Bath, England, entitled "Recollections on Walks Taken during the Summers of 1797 and 1798." We quote directly:

"A little further on, an artificial curiosity afforded us amusement — the tin-plate works at INSYGERWN (near Neath in South Wales — BM) Here we contemplated, with astonishment, the operations of machines of which before we had no idea; rollers of such immense power as reduced bars of iron two inches deep to the thickness of a crown piece, by passing them a certain number of times through their revolving cylinders; and scissors cutting plates and bars asunder of half an inch thick, with the same ease that a fair sempstress would divide a wristband. Then, by the repeated pressure of the rollers, the plate is reduced to a sufficient thinness to receive the coating of tin, it is cut by the scissors into sheets of a proper size. These are scoured well with sand, and immersed in an acid liquor, where they are suffered to remain some time, and then quickly and perfectly dried, a process pursued in order to clear them entirely from every speck of rust, the smallest particle of which would prevent the tin from adhering to the iron, as no metal will combine itself with any 'earth', the rust is nothing more than 'earth of iron', the plates, thus cleansed, are next plunged vertically into a pot containing melted tin, the surface of which is covered with pitch, suet or some fatty substance, to prevent the calcination of the tin, and to make the surface of the iron more inclined to receive its coating. By this immersion, the tin immediately unites itself to the plates, and they are taken out completely tinned; being afterwards well rubbed with bran, in order to give them a more brilliant appearance, they are packed in chests, and sent to Neath to be shipped for the London, Liverpool & Bristol markets."

SPRING MEETING

The Spring meeting of the Early American Industries Association will be held at the Old Saugus Iron Works, Lynn, Massachusetts, Friday, Saturday, and Sunday, June 26-28, 1959. Members will receive notification in late February and a follow-up in May. Tentative schedule is as follows:

FRIDAY, June 26th
- A.M. Registration. Exhibit and examination of members' choice items.
  Luncheon at the Hotel
- P.M. Tour of Iron Works. Dinner at the Hotel, followed by the Auction.

SATURDAY, June 27th
- A.M. Salem with special tool exhibits at the Essex Institute and Peabody Museum.
  Luncheon
- P.M. Banquet and annual meeting with speaker following.

SUNDAY, June 28th
General Visits.